



SEQUENCE LISTING

(1) GENERAL INFORMATION

- (i) APPLICANT:
Seidel, Christoph; Weinhues, Ursula-Henrike;
Schmitt, Urban; Motz, Manfred; Wiedmann, Michael;
Upmeier, Barbara; Soutscheck, Erwin
- (ii) TITLE OF INVENTION:
Recombinant antigen from the NS3 region of the hepatitis C virus
- (iii) NUMBER OF SEQUENCES: 9
- (iv) CORRESPONDENCE ADDRESS:
 - (A) ADDRESSEE: Felfe & Lynch
 - (B) STREET: 805 Third Avenue
 - (C) CITY: New York
 - (D) STATE: New York
 - (E) COUNTRY: USA
 - (F) ZIP: 10022
- (v) COMPUTER READABLE FORM:
 - (A) MEDIUM TYPE: 3.5 inch 1.44 Mb storage diskette
 - (B) COMPUTER: IBM PS/2
 - (C) OPERATING SYSTEM: PC-DOS
 - (D) SOFTWARE: PatentIn Release #1.0,
Version #1.25 (EPA)
- (vi) CURRENT APPLICATION DATA:
 - (A) APPLICATION NUMBER:
 - (B) FILING DATE:
 - (C) CLASSIFICATION:
- (vii) PRIOR APPLICATION DATA:
 - (A) APPLICATION NUMBER: 08/511,759
 - (B) FILING DATE: 7-AUGUST-1995y
- (vii) PRIOR APPLICATION DATA:
 - (A) APPLICATION NUMBER: p 44 28 705.4
 - (B) FILING DATE: 12 AUGUST 1994
- (viii) ATTORNEY/AGENT INFORMATION
 - (A) NAME: HANSON, NORMAN
 - (B) REGISTRATION NUMBER: 30, 946
 - (C) REFERENCE/DOCKET NUMBER: HUBR 1067.1
- (ix) TELECOMMUNICATION INFORMATION
 - (A) TELEPHONE: 212-688-9200
 - (B) TELEFAX: 212-838-3884



(2) INFORMATION FOR SEQ ID NO: 1:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 885 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: both
 (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: cDNA
- (vi) INITIAL ORIGIN:
 (A) ORGANISM: hepatitis C virus
- (viii) POSITION IN GENOME:
 (A) CHROMOSOME SEGMENT: NS3
- (ix) CHARACTERISTICS:
 (A) NAME/KEY: CDS
 (B) LOCATION: 1..885

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:

ATG ACC ATG ATT ACG AAT TCC CGG GGA TCC ATC ATG AAA TCC CCG GTG	48
Met Thr Met Ile Thr Asn Ser Arg Gly Ser Ile Met Lys Ser Pro Val	
1 5 10 15	
TTC ACG GAT AAC TCC TCT CCA CCG GTA GTG CCC CAG AGC TTC CAG GTG	96
Phe Thr Asp Asn Ser Ser Pro Pro Val Val Pro Gln Ser Phe Gln Val	
20 25 30	
GCT CAC CTG CAT GCT CCC ACA GGC AGC GGC AAG AGC ACC AAG GTC CCG	144
Ala His Leu His Ala Pro Thr Gly Ser Gly Lys Ser Thr Lys Val Pro	
35 40 45	
GCT GCA TAC GCA GCT CAG GGC TAC AAG GTG CTA GTG CTC AAC CCT TCT	192
Ala Ala Tyr Ala Ala Gln Gly Tyr Lys Val Leu Val Leu Asn Pro Ser	
50 55 60	
GTT GCT GCA ACA TTG GGC TTT GGT GCC TAC ATG TCC AAG GCT CAT GGG	240
Val Ala Ala Thr Leu Gly Phe Gly Ala Tyr Met Ser Lys Ala His Gly	
65 70 75 80	
ATC GAT CCT AAC ATC AGG ACC GGG GTG AGA ACA ATT ACC ACT GGC AGC	288
Ile Asp Pro Asn Ile Arg Thr Gly Val Arg Thr Ile Thr Thr Gly Ser	
85 90 95	
CCC ATT ACG TAC TCC ACT TAC GGC AAG TTT CTT GCC GAC GGC GGG TGC	336
Pro Ile Thr Tyr Ser Thr Tyr Gly Lys Phe Leu Ala Asp Gly Gly Cys	
100 105 110	

[illegible]

(3) INFORMATION FOR SEQ ID NO: 2:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 295 amino acids
- (B) TYPE: amino acid
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:

Met	Thr	Met	Ile	Thr	Asn	Ser	Arg	Gly	Ser	Ile	Met	Lys	Ser	Pro	Val	
1				5					10					15		
Phe	Thr	Asp	Asn	Ser	Ser	Pro	Pro	Val	Val	Pro	Gln	Ser	Phe	Gln	Val	
			20					25					30			
Ala	His	Leu	His	Ala	Pro	Thr	Gly	Ser	Gly	Lys	Ser	Thr	Lys	Val	Pro	
		35					40					45				
Ala	Ala	Tyr	Ala	Ala	Gln	Gly	Tyr	Lys	Val	Leu	Val	Leu	Asn	Pro	Ser	
	50					55					60					
Val	Ala	Ala	Thr	Leu	Gly	Phe	Gly	Ala	Tyr	Met	Ser	Lys	Ala	His	Gly	
65					70					75					80	
Ile	Asp	Pro	Asn	Ile	Arg	Thr	Gly	Val	Arg	Thr	Ile	Thr	Thr	Gly	Ser	
			85						90					95		
Pro	Ile	Thr	Tyr	Ser	Thr	Tyr	Gly	Lys	Phe	Leu	Ala	Asp	Gly	Gly	Cys	
		100						105					110			
Ala	Gly	Gly	Ala	Tyr	Asp	Ile	Ile	Ile	Cys	Asp	Glu	Cys	His	Ser	Thr	
	115						120					125				
Asp	Ala	Thr	Ser	Ile	Leu	Gly	Ile	Gly	Thr	Val	Leu	Asp	Gln	Gly	Glu	
	130					135					140					
Thr	Ala	Gly	Ala	Lys	Leu	Val	Val	Phe	Ala	Thr	Ala	Thr	Pro	Pro	Gly	
145				150					155						160	
Ser	Val	Thr	Val	Pro	His	Pro	Asn	Ile	Glu	Glu	Val	Ala	Leu	Ser	Thr	
				165					170					175		
Thr	Gly	Glu	Ile	Pro	Phe	Tyr	Gly	Lys	Ala	Ile	Pro	Leu	Glu	Val	Ile	
		180						185					190			
Lys	Gly	Gly	Arg	His	Leu	Ile	Phe	Cys	His	Ser	Lys	Arg	Lys	Cys	Asp	
	195						200					205				

Glu Leu Ala Thr Lys Leu Val Ala Met Gly Ile Asn Ala Val Ala Tyr
 210 215 220
 Tyr Arg Gly Leu Asp Val Ser Val Ile Pro Thr Ser Gly Asp Val Val
 225 230 235 240
 Val Val Ala Thr Asp Ala Leu Met Thr Gly Tyr Thr Gly Asp Phe Asp
 245 250 255
 Ser Val Ile Asp Cys Asn Thr Cys Val Thr Gln Thr Val Asp Phe Ser
 260 265 270
 Leu Asp Pro Thr Phe Thr Ile Glu Thr Thr Thr Leu Pro Gln Asp Ala
 275 280 285
 Val Ser Arg Thr Gln Arg Arg
 290 295

(4) INFORMATION FOR SEQ ID NO: 3:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 40 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:

AAGGGATCCA TCATGAAATC CCCGGTGTTC ACGGATAACT

40

(5) INFORMATION FOR SEQ ID NO: 4:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 39 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4:

GGGAAGCCTT AATTCTTACC GTCGTTGAGT GCGGGAGAC

(6) INFORMATION FOR SEQ ID NO: 5:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 39 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5:

GAGGGATCCA TCATGAAAGC GGTGGACTTT ATCCCTGTG

39

(7) INFORMATION FOR SEQ ID NO: 6:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 33 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6:

GAGAAGCTTT TAACACGTGT TGCAGTCTAT CAC

33

(8) INFORMATION FOR SEQ ID NO: 7:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 39 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7:

GAGGGATCCA TCATGAAACA CCTGCATGCT CCCACCGGC

39

(8) INFORMATION FOR SEQ ID NO: 8:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 33 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8:

GAGAAGCTTT TAATACCAAG CACAGCCTGC GTC

33

(3) INFORMATION FOR SEQ ID NO: 9:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 302 amino acids
(B) TYPE: amino acid
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 9:

13.

also in 2

This is
14 - forward
in 2

Pro Val Glu Asn Leu Glu Thr Thr Met Arg Ser Pro Val Phe Thr
1 5 10 15
Asp Asn Ser Ser Pro Pro Val Val Pro Gln Ser Phe Gln Val Ala
20 25 30
His Leu His Ala Pro Thr Gly Ser Gly Lys Ser Thr Lys Val Pro
35 40 45
Ala Ala Tyr Ala Ala Gln Gly Tyr Lys Val Leu Val Leu Asn Pro
50 55 60
Ser Val Ala Ala Thr Leu Gly Phe Gly Ala Tyr Met Ser Lys Ala
65 70 75
His Gly Ile Asp Pro Asn Ile Arg Thr Gly Val Arg Thr Ile Thr
80 85 90
Thr Gly Ser Pro Ile Thr Tyr Ser Thr Tyr Gly Lys Phe Leu Ala
95 100 105

Asp Gly Gly Cys	Ala Gly Gly Ala Tyr	Asp Ile Ile Ile Cys	Asp
110		115	120
Glu Cys His Ser	Thr Asp Ala Thr Ser	Ile Leu Gly Ile Gly	Thr
125		130	135
Val Leu Asp Gln	Gly Glu Thr Ala Gly	Ala Lys Leu Val Val	Phe
140		145	150
Ala Thr Ala Thr	Pro Pro Gly Ser Val	Thr Val Pro His Pro	Asn
155		160	165
Ile Glu Glu Val	Ala Leu Ser Thr Thr	Gly Glu Ile Pro Phe	Tyr
170		175	180
Gly Lys Ala Ile	Pro Leu Glu Val Ile	Lys Gly Gly Arg His	Leu
185		190	195
Ile Phe Cys His	Ser Lys Arg Lys Cys	Asp Glu Leu Ala Thr	Lys
200		205	210
Leu Val Ala Met	Gly Ile Asn Ala Val	Ala Tyr Tyr Arg Gly	Leu
215		220	225
Asp Val Ser Val	Ile Pro Thr Ser Gly	Asp Val Val Val Val	Ala
230		235	240
Thr Asp Ala Leu	Met Thr Gly Tyr Thr	Gly Asp Phe Asp Ser	Val
245		250	255
Ile Asp Cys Asn	Thr Cys Val Thr Gln	Thr Val Asp Phe Ser	Leu
260		265	270
Asp Pro Thr Phe	Thr Ile Glu Thr Thr	Thr Leu Pro Gln Asp	Ala
275		280	285
Val Ser Arg Thr	Gln Arg Arg Gly Arg	Thr Gly Arg Gly Lys	Pro
290		295	300
Gly Ile			
302			